FLIGHT

The AIRCRAFT ENGINEER & AIRSHIPS

First Aero Weekly in the World

Founder and Editor: STANLEY SPOONER

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport

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CONTENTS

DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:—

1926

Oct. 17 .... Lecture, "Scientific Problems of Commercial Aviation," by Air Vice-Marshall Sir W. S. Brancker, at the Guildhouse, Eccleston Square, S.W. 1.

Oct. 21 .... Mr. W. R. D. Jones, M.Sc. "Notes on Magnesium and some of its Alloys," before R.Ae.S.

EDITORIAL COMMENT.

FROM time to time we have touched, in these columns, upon the subject of three-engined aeroplanes of relatively low power, pointing out that there may very well be, and in all probability will be in the near future, a very considerable field of usefulness for this type of machine in localities in which the volume of traffic is not yet sufficient to justify the use of high-powered, three-engined machines, but where the reliability that, it is hoped and believed, the three-engined arrangement will afford, is very much to be desired. In this connection one immediately thinks of night-flying services, and of flying in weather conditions of bad visibility due to low clouds or fog. If the three-engined type comes up to expectation, it is particularly for such conditions that it should score over single-engined or twin-engined machines. This applies, of course, to the three-engined type generally, irrespective—within limits—of size and power. It is true that as yet we have not sufficient practical experience of the type to be able to say definitely whether or not the expected immunity from forced landings is provided by splitting up the power plant into three units, any two of which are capable of keeping the machine in the air until the destination is reached, or, at any rate, until a suitable intermediate landing-ground can be chosen in which to alight without risk. If, however, we look outside Great Britain it is found that in other countries also, and particularly in Germany, there is a strong tendency towards developing the three-engined aeroplane, and thus we are not alone in this country in looking towards this type for that reliability which is one of the first essentials of real commercial aviation. Taking it all around, therefore, it appears justifiable to assume—at any rate, until and unless the contrary is proved—that the three-engined machine is worth developing.

Small 3-engined Aeroplanes

If this holds good for the large machine, it equally applies to the smaller. There is, however, this to be

argued against the relatively low-powered three-engined aeroplane, that it is likely to be rather less efficient than the single-engined of the same power. This is so for various reasons. To begin with, three engines developing between them a total of, for the sake of argument, 300 h.p., are almost certain to weigh more than one engine of the same power, and it is also probable that the fuel consumption may be slightly greater. Secondly, there is the fact that placing two of the three engines outboard must almost certainly add to the drag of a machine, and that consequently the aerodynamic efficiency would seem to tend to be rather lower. By distributing the engine weight there should be a slight saving in structure weight; but, on the other hand, this is probably offset to a large extent by the necessity for special strengthening demanded by the mounting of the engines on the wing structure. Having admitted these drawbacks, and conceded the point that the three-engined aeroplane, in the smaller sizes at any rate, may be slightly less efficient, the use or otherwise of the type will obviously depend upon whether or not the added reliability is worth the slight loss in efficiency. We think the answer must be that in some cases the reliability of the three-engined arrangement is not only worth the sacrifice, but is absolutely essential. In other cases this might not be so. It will depend largely upon circumstances, and there is still—and will, we think, continue to be for many years—room for both types.

As the first modern concrete example of the three-engined aeroplane of moderate power—in this country, at any rate—considerable interest in this connection naturally attaches to the new Handley Page "Hamlet," which is now nearing completion at Cricklewood, and which is described by us in some detail this week. The "Hamlet" was first referred to, in official publications, as a "postal" machine. As actually produced, however, it is a passenger-carrier, with room for four passengers in addition to the pilot. The power plant consists of three Bristol "Lucifers," of the type IV, which develops a maximum of 120 h.p. In its present form, and with fairly heavy and elaborate cabin equipment, the machine carries fuel for three hours' flying, and, with the range corresponding to this quantity of fuel, the paying load is 800 lbs. Taking horse-power per passenger carried as a basis, it is seen that at full power the expenditure is no less than 90 h.p. per passenger. This appears a somewhat high figure, and might, unless qualified, lead to an erroneous impression of the commercial efficiency of the machine. The actual weight of four passengers would probably average 650 lbs., so that there is at least another 150 lbs. available for useful load, either in the form of luggage, or in the shape of mails and/or goods. When these facts are taken into consideration, the power expenditure is at once seen to be a good deal smaller, and in any case full-power expenditure per passenger is not a very good criterion upon which to base one's judgment. What should be done, of course, is to use the power taken from the engine at cruising speed. In the case of the "Hamlet" this is, we believe, estimated to be just over two-thirds of the total—say, 250 h.p. at round about 100 m.p.h. Upon a passenger basis this still represents some 62 h.p. per passenger, which is admittedly rather high. But if we take, not the number of passengers but the useful load in pounds the figure is found to be, based upon cruising horse-power, 3·12 lbs. of paying load per horse-power. When it is remembered that the "Hamlet" is a relatively small machine (total loaded weight about 5,000 lbs.), this figure is by no means bad. If the cabin equipment were removed and the machine used for carrying mails or goods, another 200 lbs. would probably be saved, in which case the machine would carry 4 lbs. per h.p. at cruising speed and power. This figure begins to look a good deal more promising, and such a paying load would at once make the machine a practical proposition in many localities. Thus it rather looks as if in the smaller sizes the three-engined aeroplane might be a more economical proposition if used as a mail or goods carrier than in the form of a passenger machine, and a paying load of 1,000 lbs. would represent a not inconsiderable mail bag.

There is another aspect of the three-engined aeroplane which is, perhaps, somewhat apt to be overlooked, and which should receive due attention. We appear to have become obsessed with the figure 100 where speed is concerned. This is the figure now generally assumed as a necessary cruising speed for aeroplanes used on the European air routes, at any rate, on the British portions of them. Whether there really is any practical reason for this speed, or whether it is merely because it is a "nice round figure," we do not propose to argue here. Accepting for the moment this figure as essential to the utility of a service, it is obvious that if night flying could be introduced it would be possible to use machines with a much lower cruising speed, and consequently probably somewhat more efficient as regards paying load per horse-power. Offhand one would say that 50 m.p.h. would be sufficient, but, except for very long distances, calling for flying throughout the 24 hours, a somewhat higher cruising speed would probably be necessary. Even if we put the figure at 75 m.p.h., however, there is not much doubt that a machine cruising at this speed would be able to carry very much more paying load per horse-power than one required to cruise at 100 m.p.h. Thus, if full advantage be taken of these considerations, the small three-engined aeroplane might be a very attractive proposition.

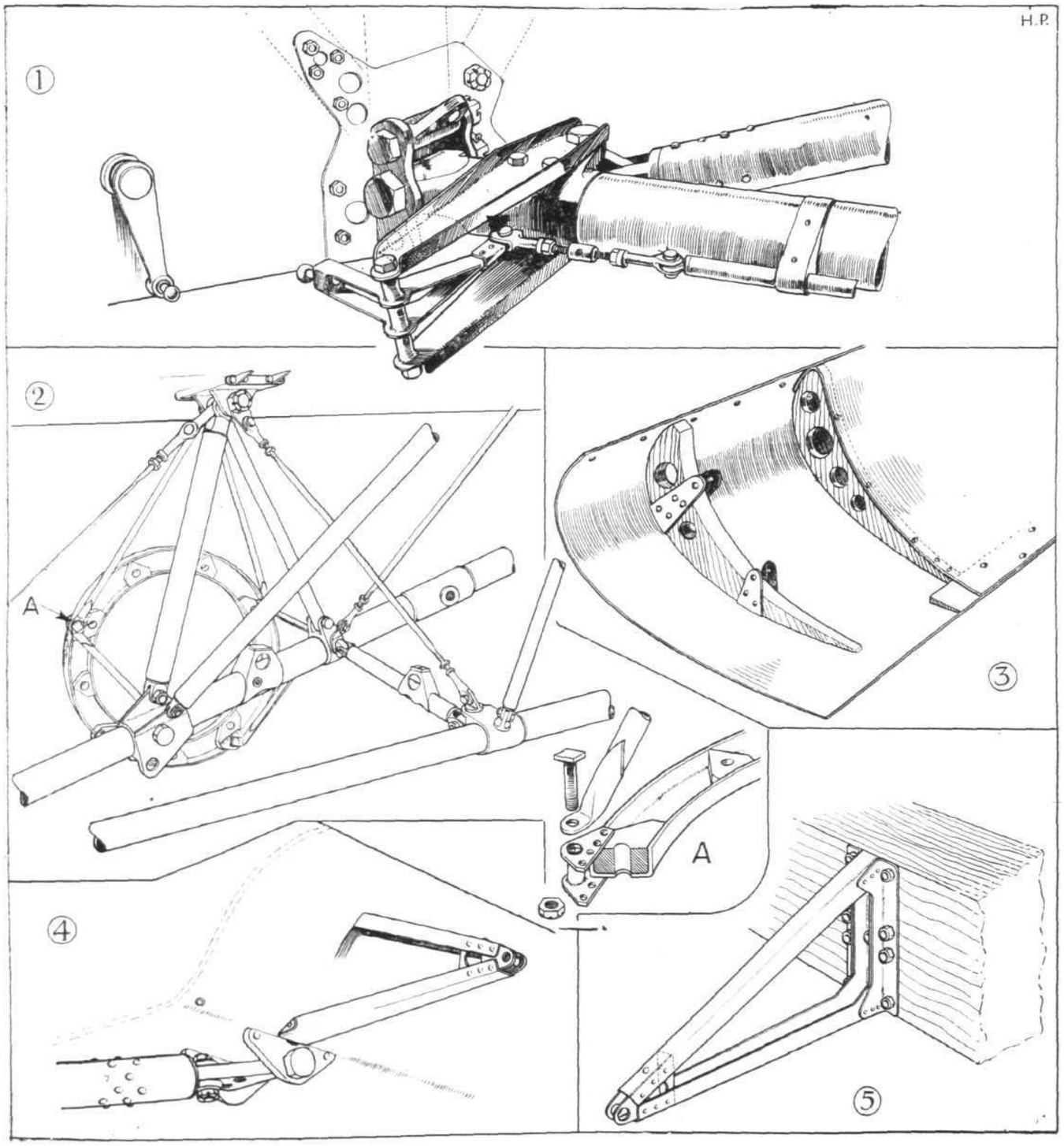
In this connection we would even go so far as to express the opinion that machines of considerably lower power than the "Hamlet" might be worth while developing. If the figure of 75 m.p.h. be accepted as a sufficiently high cruising speed, there is little doubt that, even in much smaller machines, the paying load per cruising horse-power could be, at a conservative estimate, as high as 4 lbs. Thus, if we take a machine fitted, for example, with three of the new "Cirrus" Mark II engines, and assume that this machine would cruise on about two-thirds of the total power, we obtain a cruising horse-power of approximately 170 h.p., which, if the figure of 4 lbs. per horse-power paying load is attainable, would mean a paying load of 680 lbs. There can, we think, be little doubt that such a machine could be produced, and, if not on the European air routes, at any rate in the Dominions there should be an excellent field for night-and-day air mail services with this moderate load. Even if it should be necessary to cover fairly long stages, the extra fuel would not reduce the paying load below a reasonably useful figure.

FLIGHT
AIRCRAFT ENGINEER AIRSHIPS

THE HANDLEY PAGE "HAMLET"

Three Bristol "Lucifer" IV Engines

IT is now quite a long time ago that official publications, such as annual Reports of the Aeronautical Research Committee, referred to the intention to have built an experimental three-engined mail aeroplane to be fitted with three Bristol "Lucifer" engines. For months—or, in fact, years—nothing materialised, and there was some excuse for assuming that the project had been "shelved." It is, therefore, all the more gratifying to be able to announce this week not only that the project is by no means dead, but that, as a matter of fact, the machine is nearing completion at the Cricklewood works of Handley Page, Ltd., and will in all probability be flying early next week. The machine in question has been



["FLIGHT" *Copyright Sketches*

THE HANDLEY PAGE "HAMLET": Some constructional details. 1 shows the very substantial fitting at the root of the wing struts, and also the arrangement and support of the port wing engine control, which runs along the front of the front strut in guides. The connecting link between the crank coming out of the fuselage and that on the control bracket is omitted. In 2 is shown the mounting, on the wing tubes, of the starboard wing engine as seen from behind. The small flat-topped brackets are for the support of the oil tank. The engine ring is machined from the solid and has packing pieces at intervals, as shown in 2A. Details of the leading-edge auxiliary aerofoi are shown in 3. The covering is Duralumin sheet put on over wood ribs. One of the brackets supporting the slotted trailing edge flaps is shown in 4, while 5 illustrates the manner of attaching the bracket to the main spar.

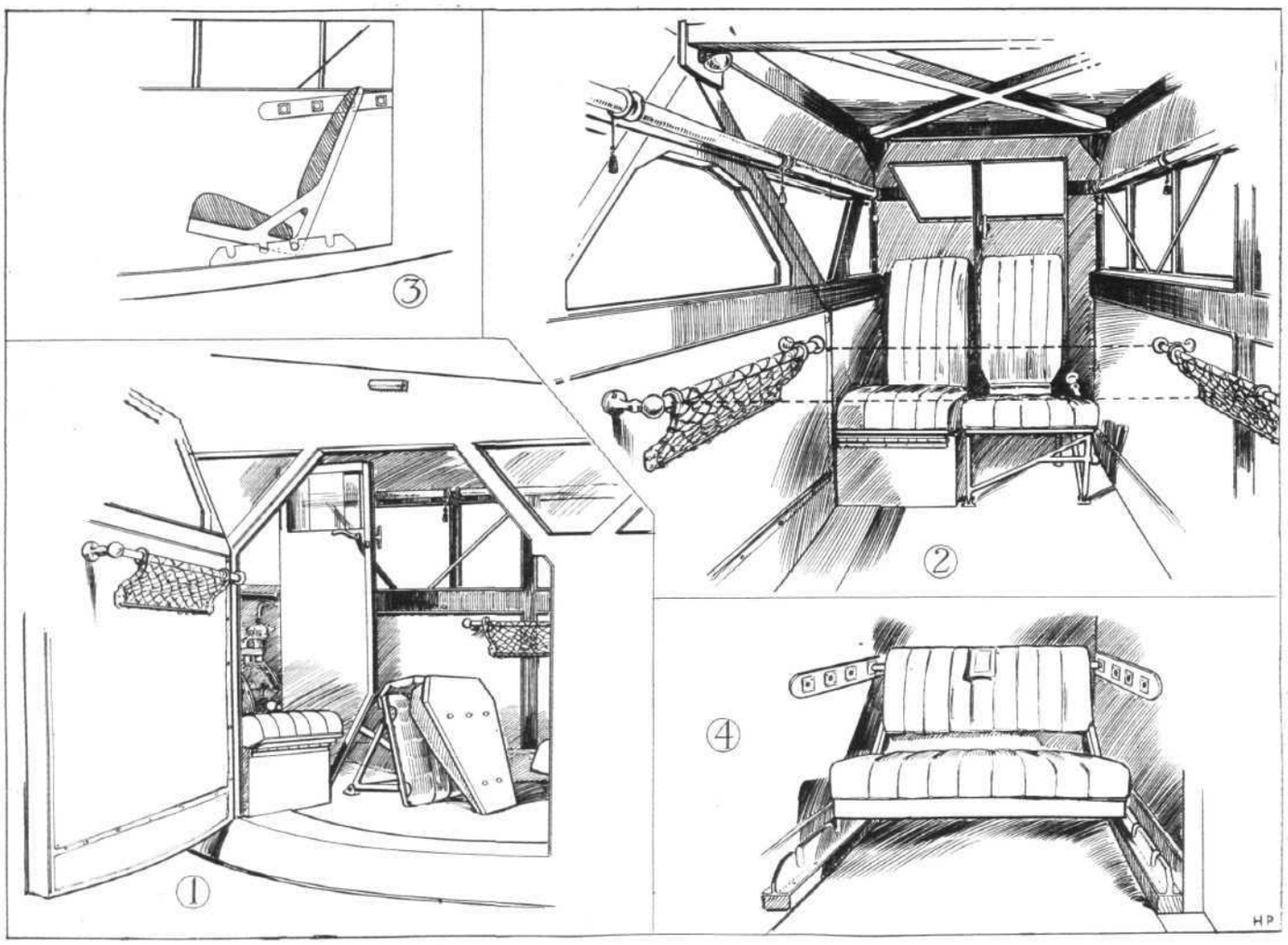
named the "Hamlet," and is a thick-wing monoplane fitted with leading-edge slots and trailing-edge slotted flaps. It would seem, however, that the original intention of producing the machine as a mail carrier has been abandoned, since the "Hamlet" appears in the form of a four-seater passenger-carrier.

FLIGHT has urged repeatedly the importance of not losing sight of the three-engined aeroplane of relatively low power. Not that we are under any false impressions as regards the economy of such a type as compared with a single-engined machine of the same power. It is fairly certain that the three-engined type will not be quite as economical as the single-engined, but it is, we think, equally certain that in various parts of the British Empire there are opportunities for the type for use under conditions where the volume of traffic is not yet large enough to justify the employment of a large three-engined machine, but where the reliability of the three-engined arrangement is more essential than maximum economy. It is therefore with considerable pleasure that we welcome the new Handley Page "Hamlet," and we sincerely trust that it will not prove a "ghost" in any sense of the term.

As already mentioned, the new "Prince of Denmark" is a monoplane incorporating the Handley Page–Lachmann slotted aerofoil, and, incidentally, apart from having the distinction of being the first modern three-engined aeroplane of low power, the "Hamlet" is the first civilian machine with slotted wings to be ordered by the British Air Ministry.

The general arrangement and lay-out of the "Hamlet" are shown in the accompanying scale drawings, while some of the constructional features are illustrated by sketches. It will be seen that the monoplane wing is of rectangular plan form, while the wing section (RAF 31) is uniform from root to tip, and the wings are set at a pronounced dihedral angle. For a total loaded weight of 5,000 lbs. the span loading : $\frac{\text{Span}^2}{\text{weight}}$ is 0·54, a fairly high figure for a machine of this size, and which should thus keep the induced drag down to a rather low figure. (For instance, at an indicated air speed of 100 m.p.h. the induced drag for this machine would be approximately 115 lbs., corresponding to a thrust horse-power of about 31, or, assuming a propeller efficiency of 75 per cent., about 41 b.h.p.)

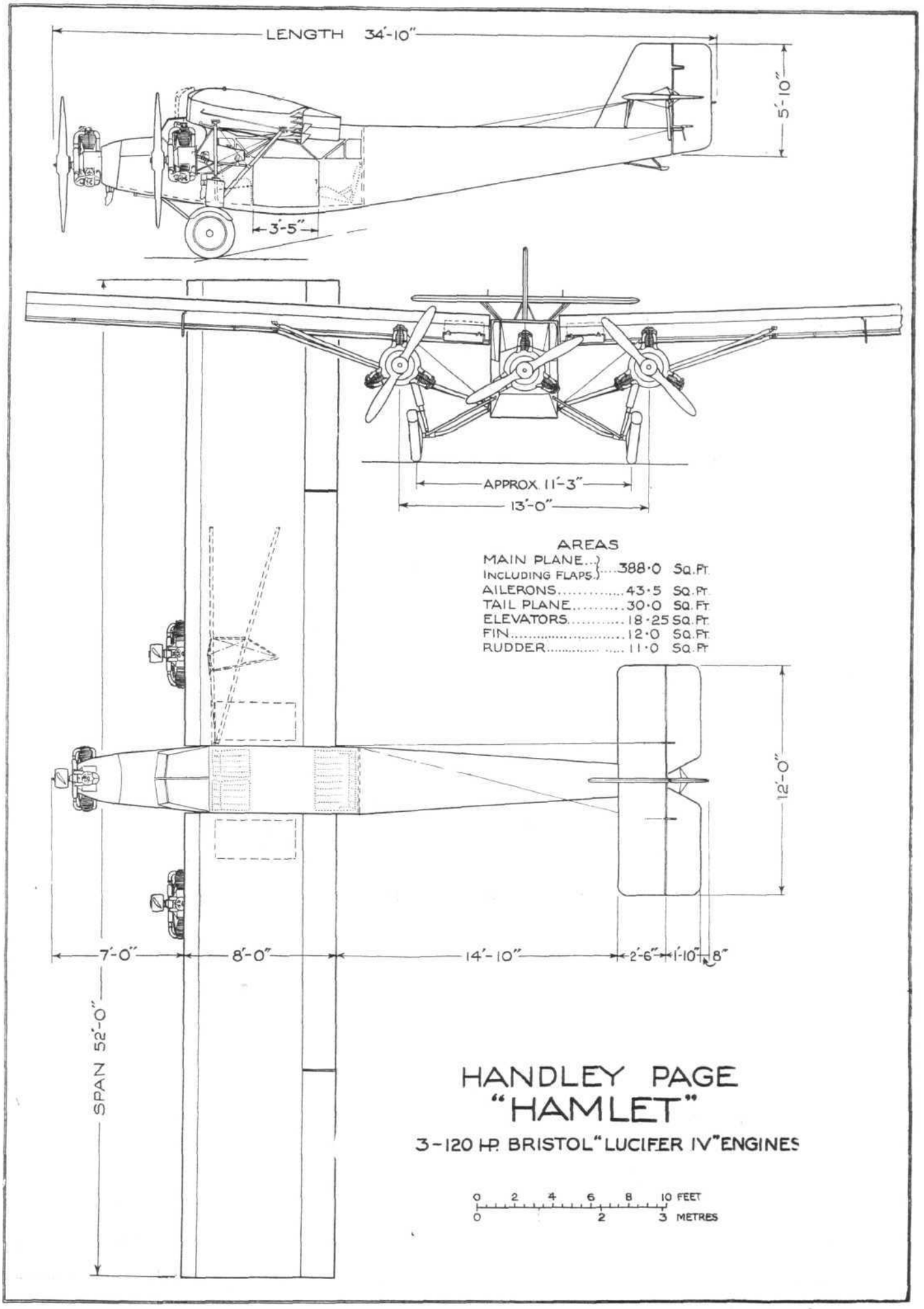
So far, therefore, as the wing arrangement itself is concerned, the new Handley Page "Hamlet" should be very efficient, especially as the section employed, that known as RAF 31, has a good L/D ratio when in its normal form. The addition of the slotted leading edge and slotted flaps is admittedly something of an experiment, and has not, as far as we are aware, been tried on this section at full scale before. The maximum lift coefficient of RAF 31, according to full-scale tests carried out on a Bristol Fighter (*see* Reports and Memoranda No. 990, Full Scale and Model Measurements of Lift and Drag of Bristol Fighter with RAF 31 Wings), is 0·635 at 18° incidence. We believe it is estimated that the stalling speed of the "Hamlet" will be in the neighbourhood of 47 m.p.h., which would correspond, with a wing loading of 12·9 lbs./sq. ft., to a maximum lift coefficient (full scale, of course) with slots open, of 1·1 (absolute). Presumably, therefore, experiments with slotted models of RAF 31 in the Handley Page wind tunnel have indicated that an increase in lift coefficient of this order may be expected.



["FLIGHT" *Copyright Sketches*

THE HANDLEY PAGE "HAMLET": 1 represents a peep into the cabin, through the open door in the port side. The door leading to the pilot's cockpit can be seen open and the seat in the front starboard corner is tilted out of the way of the door. In 2 is given a view inside the cabin looking forward, with the door to the cockpit closed and the seat in its normal position. Note the roller blinds and the net racks on the sides, which serve as supports for the removable table (shown in dotted lines). 3 is a side elevation of the back seat, showing method of supporting it cantilever fashion. 4 is a view inside the cabin looking aft. The flap in the back rest covers the handle which releases the catches securing the chair in position. When this is released the back seat can be moved to various positions.

FLIGHT
AIRCRAFT ENGINEER & AIRSHIPS



THE HANDLEY PAGE "HAMLET": General arrangement drawings, to scale.

Constructionally the leading edge slots of the "Hamlet" wings are of interest on account of the fact that the auxiliary aerofoil is not, as in several previous Handley Page machines, single surfaces of sheet Duralumin, but built-up aerofoil sections shaped so as to fit, when the slot is closed, snugly against the nose of the main aerofoil. Thus, presumably, the wing will have as low a drag with slot closed as the normal RAF 31 section. The auxiliary aerofoils are operated by torque tubes from the cockpit, and are interconnected with the slotted trailing-edge flaps, the outer portions of which, of course, retain their differential action as ailerons.

Although the monoplane wing of the "Hamlet" promises to be of very good aerodynamic efficiency, there would appear to be a probability that this efficiency may be somewhat lowered by placing two engines on the wing-bracing struts. This is almost inevitable—at any rate, with radial air-cooled engines—and must be regarded as the price to be paid for the extra reliability which the three-engine arrangement offers. Behind the two outboard engines are placed the oil tanks, of conical shape, but otherwise it is not intended to streamline the wing engines. The fuselage is of good shape, and is of fairly small cross-section considering that the machine has been designed as a passenger-carrier. On the whole, it can, we think, be said that the "Hamlet" is of clean design for a machine of this type, and we understand that the estimated top speed is in the neighbourhood of 118 m.p.h. (190 km./hr.), which, if attained, is distinctly good for a three-engined aeroplane of this power and wing loading.

Constructional Features

Generally speaking the "Hamlet" follows normal Handley Page practice as regards construction. The fuselage is of the girder type throughout, including the cabin portion, and is fabric covered. In a few instances short lengths of the bracing wires cross the cabin windows, but these lengths are so short as to interfere but little with the view, which, on account of the monoplane wing, is very good. Probably the fact of the cabin being fabric covered may serve to reduce to some extent the rather unpleasant "drumming" which one is apt to get in most cabin machines.

The wings are of fairly normal composite construction, with box-section spars having three-ply walls, and wooden ribs. The shaping of the front and rear slots has naturally necessitated rather careful work on the leading and trailing edges of the main wing, three-ply being the material used for the immovable portions of the slots. The wing bracing is in the form of large-diameter steel tubes meeting the two main spars and converging at a point on the lower longerons of the fuselage.

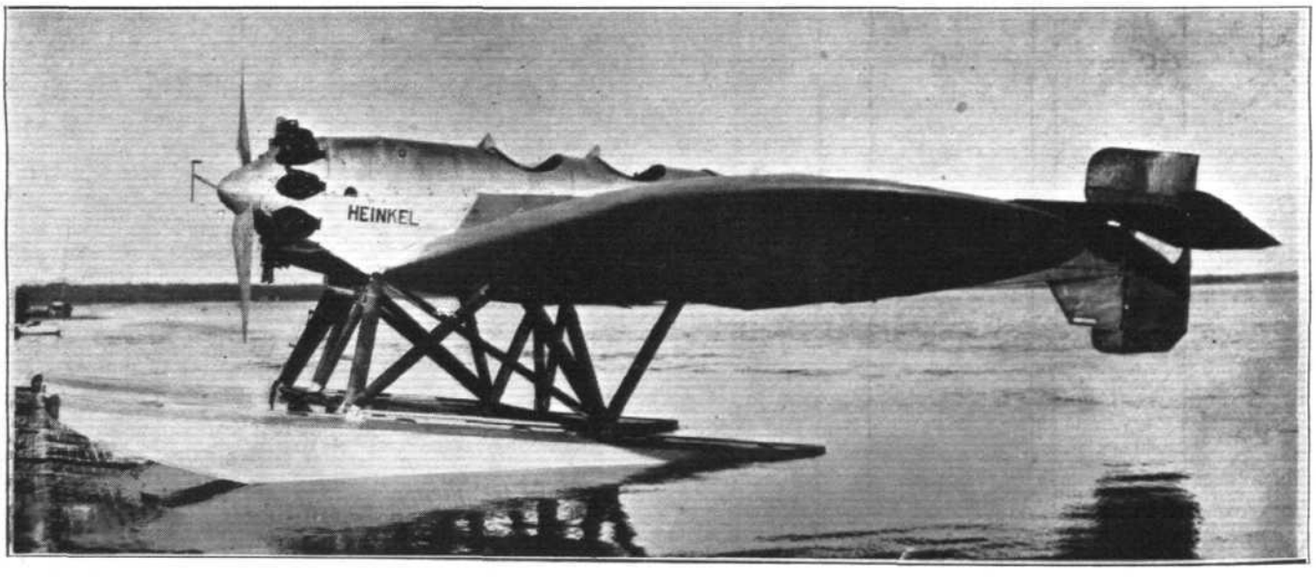
The engine mountings are also tubular, with the exception of the actual engine "rings," which are machined from the solid into a channel section Details are shown in our sketches Two petrol tanks are mounted inside the wing, one on each side of, and just outside, the fuselage. From the tanks the petrol flows by gravity to a distributor box in the cockpit, from which again, via suitable petrol cocks, either or all engines can be supplied from either or both tanks.

The pilot's cockpit, situated between the front wall of the cabin and the bulkhead behind the central engine, is very roomy and affords an excellent view. The cockpit is particularly plentifully supplied with "gadgets," since there is not only the slot operating gear to attend to but also a complete wireless installation. The various controls are, however, conveniently placed, and the engine controls are of very simple type, so that in spite of the three-engined arrangement the number of controls is not excessive.

The Cabin

From the pilot's cockpit a door on the starboard side leads to the cabin, which has seats for four passengers, of whom two face forward and two aft. The seat in the front starboard corner of the cabin is hinged so as to swing out of the way when it is desired to pass from cabin to cockpit or vice versa, and a handle projects from this seat into the cockpit so that the pilot can, when this seat is not occupied, swing it out of the way and open the communicating door. The seats are well upholstered and very comfortable, and provision has been made for carrying permanently a table which, when in use, rests on the tubular rails of the nets on the side walls of the cabin. The entrance door is on the port side, and the machine is so designed that passengers can step straight into the cabin from the ground without the use of steps. Emergency ripping panels are provided in the roof, and the windows are provided with silk roller blinds in place of the more usual curtains. Altogether the cabin is most comfortable and in spite of the fact that it is not of very large dimensions (104 cubic feet) does not at all, for some reason, give one the impression of being shut into a cramped space which one frequently gets in very much larger cabins. At the moment it is, of course, impossible to say how far the cabin of the "Hamlet" will be noisy or not. This can only be decided after prolonged flying in the machine. But otherwise the cabin is exceptionally comfortable, and it is quite evident that the designers have aimed at comfort rather than weight-saving in its equipment, a policy which is entirely justified.

The main data relating to the Handley Page "Hamlet" are as follows:—Length over all 34 ft. 10 in. (10·6 m.); wing span 52 ft. (15·85 m.); wing chord, 8 ft. (2·435 m.); wing area, 388 sq. ft. (36 m.²); weight of machine bare, 3,105 lbs. (1,410 kg.); weight of instruments, cabin equipment, etc., 270 lbs. (122·7 kg.); petrol, 74 gallons (337 litres); oil 7 gallons (31·9 litres); weight of pilot 180 lbs. (82 kg.). Useful load (4 passengers and luggage), 800 lbs. (363 kg.). Total loaded weight, 5,000 lbs. (2,270 kg.). Wing loading, 12·9 lbs/sq. ft. (63·2 kg/m²). Power loading (3 engines at 120 h.p.), 13·9 lbs./h.p. (6·32 kg/h.p.). "Wing-power" (*i.e.* ratio of horsepower to wing area), 0·928 h.p./sq. ft. (10 h.p./m²). Power loading with 2 engines running, 20·8 lbs./h.p. "Loading-figure" (*i.e.* power loading multiplied by square root of wing loading) 50. Estimated top speed, 118 m.p.h. (190 km./h.). Cruising speed 100 m.p.h. (161 km./h.) Landing speed 47 m.p.h. (75·7 km./h.). Speed with two engines running, 90 m.p.h. (145 km./h.)



THE BRISTOL "JUPITER" IN GERMANY: The Heinkel H.E.5 mono-seaplane fitted with a Bristol "Jupiter" engine. It was this type of machine which did so well in the recent Warnemünde competition, until it came to grief in the seaworthiness tests.

FLIGHT

The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

COMMITTEE MEETING

A MEETING of the Committee was held on October 6, 1926, when there were present :—Lieut.-Colonel Sir Francis K. McClean, A.F.C., in the chair, Air Vice-Marshal Sir W. S. Brancker, K.C.B., Mr. Ernest C. Bucknall, Lieut.-Colonel M. O. Darby, Mr. E. J. B. How, Wing-Comdr. T. O'B. Hubbard, M.C., A.F.C., Mr. F. Handley Page, C.B.E.

Election of Members.—The following new members were elected :—

James Alexander Atkinson.
Flying Officer Henry Charles Emanuel Cyril Ponsonby Dalrymple.
Capt. Frederick Edward Guest.
Stanley Woodward.
Flying Officer George Terrell.
George Frederick Acland Johnsen.
Lieut.-Comdr. Sidney Edgar Deacon.
Thomas Andrew Dennis.
Flying Officer Robert Howard Windsor.
Flying Officer Guy Marcus Trundle.
Flying Officer Herbert Gardner Travers.
George Saunders.
Flight-Lieut. W. F. Anderson.
Squad.-Leader H. Dawes.

Aviators' Certificates.—The following aviators' certificates were granted :—

8013	John Frederick Wilkinson	July 13, 1926.
8014	George Alexander Ronald Malcolm	July 22, 1926.
8015	Leicester John Cecil Mitchell	July 30, 1926.
8016	Cyril Edwin Murrell ..	August 3, 1926.
8017	John Stuart Merson Michie	August 6, 1926.
8018	Cecil Thompson, Jun. ..	July 27, 1926.
8019	Leslie Smith	July 29, 1926.
8020	Alfred Leonard Alwyn Goodyear	August 1, 1926.
8021	Frederick Howard Phillips	August 1, 1926.
8022	Hubert Breffitt Leaster Dixon	July 30, 1926.
8023	Eric James Brighton ..	July 28, 1926.
8024	George Vivian Perry ..	July 28, 1926.
8025	Cecil Leonard Knox ..	August 4, 1926.
8026	Harold John Willis ..	July 28, 1926.
8027	William Richard Massey ..	August 25, 1926.
8028	Dent Hugh Turner Lancaster	August 27, 1926.
8029	Wilfred Swann	July 28, 1926.
8030	Reginald Lister Jackson ..	August 5, 1926.
8031	Leonard Arthur Hackett ..	Sept. 6, 1926.
8032	Charles Ali Akbar Agar ..	August 8, 1926.
8033	Harold Oswald Young ..	Sept. 7, 1926.
8034	Robert Fawcett Little ..	Sept. 9, 1926.
8035	Nicolas de la Borda ..	Sept. 20, 1926.
8036	Oliver John Tapper ..	Sept. 22, 1926.
8037	Thomas Courtis	Sept. 23, 1926.
8038	George Harold Neville Larden	Sept. 28, 1926.
8039	Hellmuth John Stieger ..	October 4, 1926.

Sub-Committees.—The reports of Racing, House and Finance Committees were received and approved.

LIGHT 'PLANE CLUB DOINGS

London Aeroplane Club

THE total flying time for the week ending October 10 was 38 hours 20 mins. The weather prevented any flying on Saturday last.

The following members had dual instruction :—H. Spooner, S. H. S. Garne, A. F. Beauchamp, A. J. Richardson, W. L. S. McLeod. T. C. Angus, A. L. A. Petty, S. C. Richards, G. N. Howe, J. G. Crammond, R. A. St. John, H. R. Godfrey, C. H. Tutt, P. W. Hoare, H. F. Wight, E. A. Lingard, T. C. Elford, Lady Bailey.

The following members made solo flights :—Miss O'Brien, O. J. Tapper, S. H. S. Garne, Capt. W. Roche Kelly, E. S. Brough, Lady Bailey, W. Hay, R. C. Presland.

Joy rides were given to the following Members :—A. J. Symmonds, Miss M. Webb, E. S. Brough.

G-EBLI, just returned from the works after its crash on September 17, has again been involved in a further episode. S. H. S. Garne, flying solo, misjudged his landing, with the result that the undercarriage, wings and fuselage were considerably damaged.

T. H. O. Richardson passed the tests for his Aviator's Certificate on Wednesday, October 6, 1926, flying on his own Avro.

The Hampshire Aeroplane Club

REPORT for week ending October 7.—Total flying time, 14 hrs. 38 mins. Instruction flying, 12 hrs. 30 mins. Passenger flying, 1 hr. 23 mins. Solo flying, 45 mins.

The following members received instruction :—Miss Home, Messrs. Perfect, Moloney, Bound, Courtnay, Stokes, Dickson, Appleford, Nicholson, Dartnall, Sommer, Kerry, Everett, Cooper, Dobson, Vanden Bergh.

The following members received joy-rides :—Miss Timson, Mrs. Cook-Hurle, Mrs. Morton, Messrs. E. O. Smith, and Alexander.

Messrs. S. Fry, K. P. L. Bowen, and Flight-Lieut. Crawford flew solo.

"Gee Boy," having completed 100 hours flying time, is now having its overhaul, and will be ready for the air again within a few days.

Lancashire Aero Club

REPORT for week ending October 8.—Bad weather, staff holidays and Manchester Civic week cut down the available flying period to 3½ days. Total time for week, 33 hrs. 45 mins., made up as follows :—

Dual with Mr. Stack :—Leigh, Crosthwaite and Lilley, 20 mins. each.

Dual with Mr. Cantrill :—Abdulla, 1 hr. 10 mins ; Nelson, 50 mins. ; Anderson, 45 mins. ; Birley, 40 mins. ; Cowan, Smith and Goodyear, 30 mins. each ; Stern, 25 mins. ; Banes, Leigh, Newton, S. Birley, Wade and Bladgen 20 mins. each ; Hope, Cohen and Slayden, 15 mins. each ; Hampson, 5 mins.

Dual with Mr. Scholes :—Nelson, 40 mins.

Solo and/or with passengers :—Stack, 4 hrs. 15 mins. ; Leete, 3 hrs. 50 mins. Leeming, 2 hrs. 30 mins. ; Costa, 2 hrs. 25 mins. ; Lacayo, 1 hr. 40 mins. ; Scholes and Agar, 1 hr. 25 mins. each ; Cantrill, 1 hr. 20 mins. ; Hampson, 35 mins. ; Goodfellow, 1 hr. ; Michelson, 30 mins. ; Hardy, 20 mins. ; Williams, 15 mins.

Joy-rides :—Mrs. Jones, Mrs. Baley, Miss Nuttall, Miss Littley, Messrs. Irwin, Birley, Corbishley, Lacayo, Williams, Leeming, Mathews and Chapman.

Tests occupied 2 hrs. 10 mins.

In connection with his Civic reception at Manchester, Sir Alan Cobham landed at Woodford on Thursday, where he was entertained by Avro's and the club, and subsequently escorted to the emergency landing ground in the city by a formation of club machines (two Moths, piloted by Cantrill and Scholes, and the Avro Gosport, piloted by Goodfellow). It will be noted that the Gosport has been "tamed" ; the Renault-Avro went unserviceable at the last minute, so Mr. Goodfellow promptly took the air on the Gosport, with the aid of about 3½ cylinders and plenty of confidence. He reported subsequently that the engine was really an unnecessary luxury anyway as, once off the deck, the Gosport will fly entirely on its reputation.

Midland Aero Club, Ltd.

REPORT for week ending October 9 :—The flying time was 5 hrs. 27 mins. The following members were given dual instruction : S. H. Smith, J. Brinton, A. B. Gibbons, H. Smith. The following members made solo flights : R. L. Jackson, E. R. King, G. V. Perry, E. J. Brighton, J. Brinton. On Sunday Mr. E. R. King made the necessary qualifying tests for his "A" licence.

The Club has now completed one year's operations as one of the six flying clubs approved by the Air Ministry. The distinction of having been the first provincial aero club in this country belongs to the Midland Aero Club, which was founded as far back as September 3, 1909, with a membership of 25. Those who remember the early days of flying will recall that the club organised and carried to a successful issue the first All-British aviation meeting at Dunstall Park, Wolverhampton, in 1910.

With the advent of the 1914–18 War club activities practically ceased, but with the inauguration of the Air Ministry light aeroplane scheme interest soon revived.

During the past year two D.H. 60's have provided the flying material : G-EBLT has done 215 hours and G-EBLW has done 248 hours, which represents a total mileage flown of about 33,000.

It is very satisfactory to be able to place on record the fact that there have only been five forced landings—one from mechanical defect, three from loss of direction, and one through the pilot stopping the airscrew in the air.

The damage to aircraft during the year has been exceedingly small—two under-carriage bracing cables, one under-carriage radius strut, and two airscrews. One airscrew was broken through the aeroplane colliding with a reaping machine while taxying, and the other as a result of running into a hedge after a forced landing in a small field ; in each case the machines were in the hands of pupils. This entire absence of any serious crash reflects considerable credit on the high standard of the instruction given by Capt. McDonough, who has been solely responsible for all the instructional work, and Mr. W. J. Halland, whose excellent aircraft maintenance has always been at a very high level.

The Newcastle-upon-Tyne Aero Club

FLYING report for week ending October 10.—Gales, rain and magneto troubles have curtailed the amount of flying which might have been possible in view of the large attendances of members throughout the week. Total flying time, 23 hrs. 20 mins. Dual, 13 hrs. 25 mins. Solo, 5 mins. "A" Pilots, 8 hrs. 55 mins. Tests, 10 mins.

The following members flew under instruction with Mr. Parkinson :—Mr. J. D. Irving, Miss C. R. Leathart, Mr. J. M. Kennedy, Mr. E. C. Kennedy, Mr. J. N. Charlton, Mr. R. Whitfield, Mr. D. Matthews, Mr. M. Bainbridge, Mr. H. Ellis, Mr. J. D. Bruce.

The following members flew solo and with passengers :—Mr. C. Thompson with Mrs. Heslop ; Mr. W. Baxter Ellis with Mrs. Ellis, Mr. R. N. Thompson ; Mr. F. H. Phillips with Mrs. Anderson ; Dr. H. L. B. Dixon with Dr. Hume ; Lord Ossulston with Mrs. W. B. Ellis and Mr. Whitfield.

Mr. Warner and Councillor W. B. Ellis flew with Mr. Parkinson.

On Monday Lord Ossulston with Mr. Whitfield as passenger in one machine and Mr. F. H. Phillips in the other, flew to Chillingham Castle, landed for tea and returned to the aerodrome.

On Friday, Mr. Heppell and Lord Ossulston left the aerodrome at 7 a.m., flew to Chillingham, where they landed. Later they flew to Edinburgh. Mr. Heppell returned alone, making the journey in 58 minutes.

On Thursday Mr. H. Ellis made his first solo flight, which was a very creditable performance with an excellent landing.

SIR ALAN COBHAM'S BUSY WEEK

SINCE the conclusion of his historic England-Australia-England flight, Sir Alan J. Cobham has been, as might be expected, spending a busy time attending official and civic functions, giving lectures, etc. We have already referred, in last week's issue of FLIGHT, to the luncheon given in his honour by Sir Chas. Wakefield, and the official Air Council luncheon, held on October 4 and October 5 respectively, and so we need not dwell further on these two functions, but will pass on to Sir Alan's subsequent activities.

On October 7 Sir Alan attended a reception at Manchester, in connection with that city's Civic Week. As originally planned, he was to fly from London to Manchester in a D.H. "Moth," arriving in time to attend a luncheon given in his honour by the Lord Mayor at the Town Hall. Sir Alan left Stag Lane aerodrome at 9.50 a.m., and all went well until near Nuneaton, when a sooted plug necessitated a forced landing. This was accomplished in a field near Hinckley, some overhead electric cables carrying some 6,000 volts, just missing the machine. It was then discovered that the tool kit was conspicuous for its absence, and even if they could have removed the faulty plug, there was no spare one to replace it! As a result, Sir Alan, after walking several miles trying to find the necessary means of repair, had to telephone for another machine, and when this arrived he proceeded on his journey.

In the meanwhile, about half the population of Manchester had turned out to give him welcome at Woodford, Withington (the two aerodromes where he would land) and Albert Square, outside the Town Hall, and much disappointment was caused by his non-arrival at the appointed hour. Eventually, however, Sir Alan arrived safely at Woodford (the headquarters of the Lancashire Aero Club) at 2.40 p.m., where he received a hearty welcome. Proceeding after a brief interval, he arrived at the Withington landing ground at 3.54 p.m., whence he hurried to the Town Hall—too late, of course for the lunch prepared in his honour. A most enthusiastic reception was accorded him by the huge crowd, which had waited patiently for his arrival, and after being warmly received by the Lord Mayor, Sir Alan made a brief speech to the crowd outside the Town Hall.

As Sir Alan explained to the Lord Mayor, he could fly to Rangoon, etc., through all sorts of things without any trouble, but he was unable to do a few miles in his own country! During the course of his speech, Sir Alan said that in Mr. A. V. Roe the city possessed the man who had designed the first aeroplane that ever flew, and upon whose design the whole industry was based, and he appealed to the citizens to take the lead in the aircraft industry, which, he prophesied, would one day be as great as, if not greater than, the motor-car industry. At present other countries were going ahead faster than we were, and it would be a bad day unless we regained our lead.

On October 8 Sir Alan was the guest of honour at the monthly luncheon of the Overseas League at the Criterion Restaurant, at which Air Vice-Marshal Sir Sefton Brancker presided. Referring to Sir Alan's flights, the Chairman pointed out that, unlike other big flights made by foreign airmen, Sir Alan had, with one small exception, got all the necessary money raised privately. Sir Alan, in responding, emphasised the fact that the whole journey to Australia and back was never interrupted through any fault of the aeroplane or engine, which went to prove, as did the figures of the various Imperial Airway transport lines, that we had come to a stage in aviation where mechanical failure was no more apparent than in any other form of transport.

That evening (October 8) Sir Alan and his companions were honoured at dinner by the Institute of Aeronautical Engineers at Kettner's Restaurant, Lieut.-Col. J. T. C. Moore-Brabazon presiding. In the course of his speech in reply to the toast of his health, proposed by the Chairman, Sir Alan paid a tribute to the work of Sergt. Ward and Mr. Capel, who had, he believed, kept his D.H. 50 in a probably better condition than any other machine ever had been kept. He added that he contemplated no more long flights for the time being, but he hoped, however, to continue to assist aviation in every way he possibly could.

Lord Thomson of Cardington (a former Secretary of State for Air) proposed the toast of "Civil Aviation," and Sir Sefton Brancker, Director of Civil Aviation, replied.

The proceedings were brought to a close with the toast of "Our Chairman," proposed by Mr. Lawrence A. Wingfield, Honorary Solicitor of the Institution.

Other guests included, in addition to Sergt. Ward and Mr. Capel, General Guidoni (Italian Air Attaché), Captain and Mrs. Tymms, and Mr. and Mrs. R. A. Loader.

Sir Samuel Hoare sent an expression of regret at being unable to attend, and a telegram was received from Sir Charles Wakefield to the same effect.

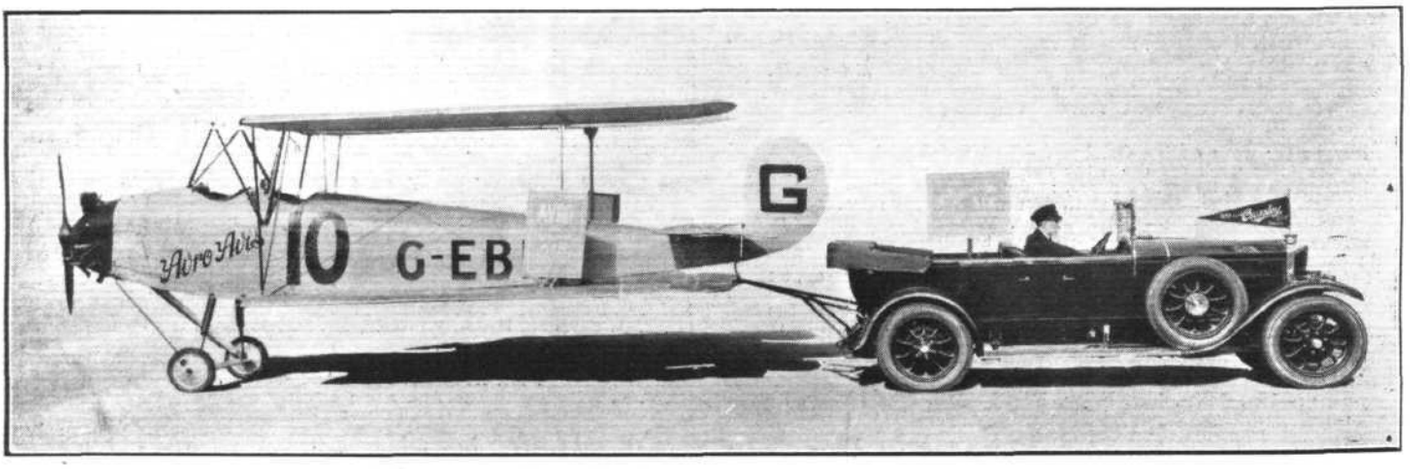
After dinner the guests adjourned to the restaurant, where dancing until 2 a.m. brought a highly enjoyable and interesting occasion to a close.

On Sunday evening Sir Alan gave his first public lecture since his return home at the Royal Albert Hall. Air Vice-Marshal Sir Sefton Brancker introduced the lecturer, and in doing so said he believed that history repeated itself—in Queen Elizabeth's time distinguished pioneers accomplished great things on the seas, and now they had started to build up the great air force of the future.

Sir Alan then gave the full story of his flight to Australia and back, the complete route traversed and certain places referred to during the course of the lecture being indicated by means of a large map placed behind the lecturer.

Sir Alan was among the visitors at Buckingham Palace on October 11, when he was received by the King, who bestowed upon him the accolade of knighthood. His Majesty had a long talk with Sir Alan about the flight to Australia and back.

The Hon. W. G. Gibson, Postmaster-General of the Commonwealth of Australia, has written to Sir William Mitchell-Thompson, the British Postmaster-General, recording, *inter alia*, his appreciation of Sir Alan J. Cobham's wonderful flight out to Australia. The letter was a reply to one from Sir William Mitchell-Thompson, which was carried by Sir Alan on his outward flight. It was conveyed on the return flight to this country, and has been duly delivered to the Postmaster-General.



NOT A TUG-OF-WAR: This is not a tug-of-war between rivals in transport, but one of the features in the Transport Parade held in connection with the Manchester Civic Week. The Avro "Avis" light 'plane towed by the 18-50 h.p., six-cyl. Crossley car created a good deal of interest.

ROYAL AERONAUTICAL SOCIETY NOTICES

New Chairman.—Colonel the Master of Sempill, A.F.C., Associate Fellow, assumed office as Chairman of the Society for the year 1926-1927 on October 1.

Lecture Session.—The following programme of lectures has been arranged for the first half of the Session, 1926-1927 :—

Thursday, October 7, at 8.30 p.m.
Colonel the Master of Sempill, A.F.C.
"Aero Engine Fuels of Today and Tomorrow."

Thursday, October 21, at 6.30 p.m.
Mr. W. R. D. Jones, M.Sc.,
"Notes on Magnesium and Some of its Alloys."

Thursday, November 4, at 7.0. p.m. (Joint Meeting with the Institution of Automobile Engineers).
Mr. G. F. Mucklow.
"Hydrogen as an Auxiliary Fuel for a Solid Injection Engine."

Thursday, November 18, at 6.30 p.m.
Mr. R. S. Capon.
"Methods of Performance Testing and Analysis."

Thursday, December 2, at 6.30 p.m.
Mr. P. B. Henshaw.
"Alloy Steels for Aero Work."

Thursday, December 16, at 6.30 p.m.
Wing-Commander C. D. Breeze, A.F.C., R.A.F.
"The Training of Aircraft Apprentices."

Elections.—The following have been recently elected in the various grades of the Society :—

Fellow : Mr. E. F. Relf.

Associate Fellows : Mr. J. H. Crowe, Mr. A. S. Halliday, Mr. D. A. Hughes, Captain A. G. Lamplugh, Mr. J. C. Stevenson, and Flt.-Lieut. E. J. D. Townesend.

Associates : Mr. J. E. Atkins, F./O. E. St. M. Brett, Mr. H. V. Bullbrook, Mr. O. P. H. Denyer, Mr. L. W. Dove, Mrs. Eliott-Lynn, Flt.-Lieut. V. P. Feather, F./O. C. A. C. Fidler, Mr. C. H. Prewer, Mr. W. G. Gibson, Mr. T. Hampson, Mr. H. R. Haynes, Flt.-Lieut. P. G. Leigh, Mr. P. H. Lindley, Mr. F. A. I. Muntz, Mr. W. J. Plater, Flt.-Lieut. R. C. Preston, F./O. O. T. P. Prickman, Mr. J. B. Prior, Mr. F. Radcliffe, Mr. W. Ramsay, Mr. G. C. D. Russell, Mr. D. G. Snook, Lieut. the Hon. J. M. Southwell, R.N., F./O. J. F. Tadman, Mr. A. V Tarlton, and Mr. L. D. Whistler.

Students : Mr. E. J. Fearn, Mr. P. T. Capon, and Mr. C. D. Perrickos.

Members : Mr. E. A. Berens, Col. C. de F. Chandler, Sir Robert Waley Cohen, The Master of Elibank, Mr. N. Norman, and Mr. R. C. Tragett.

Lecture.—The second lecture of the first half of the sixty-second session will be held on October 21 at 6.30 p.m., at the Royal Society of Arts, 18, John Street, Adelphi, W.C. 2, when Mr. W. R. D. Jones, M.Sc., will read a paper entitled "Notes on Magnesium and Some of Its Alloys." Colonel the Master of Sempill, A.F.C., A.F.R.Ae.S., will take the chair.

Associate Fellowship Examination.—The Society's fourth examination for Associate Fellowship took place on September 21. One candidate only, Mr. J. C. Dodds, was successful in both papers submitted.

J. LAURENCE PRITCHARD.
Honorary Secretary.

AERO ENGINE FUELS OF TODAY AND TOMORROW

A PAPER under above title was read before the Royal Aeronautical Society on October 7 by Colonel the Master of Sempill, A.F.C., A.F.R.Ae.S. Unfortunately it is not possible for us to give the paper in full, it being one of quite exceptional length, nor does the paper lend itself to summarising. The lecturer dealt with his subject in a most thorough manner, going back as far as the Bible (Genesis ix, 3) for his earliest records of petroleum products (in connection with the Tower of Babel the statement is found "Slime had they for mortar," the slime being bitumen). In the course of his very interesting paper Colonel Sempill dealt with petroleum supplies, Scottish shale oil, coal by-products, power alcohol, and their various forms and sub-divisions. Reference was also made to dopes and detonation. In conclusion, the lecturer stated that no startling or sudden changes in the basic fuels used to-day could be visualised in the immediate years to follow. "It is considered," he concluded, "that the fuels of the immediate future will be the same as those used to-day, but the source of supply will of course be considerably augmented, and alcohol, as yet playing a negligible part, will come into greater use. The principal factors that will enable the attainment of desired results that have been briefly outlined above are the following, and in their fulfilment lies, in the writer's humble opinion, a forecast of the fuel position of the immediate future :—

"(*a*) The extension of research on engine design, not only from the point of view of improvements in design, but from the point of view of the bearing such work will have on the use of fuels other than petrol and the like, and the relation of same to the points below.

Land's End to John O'Groats in a "Moth" : Colonel the Master of Sempill enjoys a refreshing cup of tea after his recent flight from Land's End to John O'Groats in the King's Cup D.H. "Moth" G-EBMO. He covered the 630 miles in 8 hrs. 14 mins., making a brief halt at Shotwick en route.

" (*b*) The discovery of a dope that will suppress detonation when added to fuels in small quantities. Such a substance should be readily available in the quantities required, and at an economic figure. It must be free from all deleterious effects and should for preference be a non-metallic substance.

" (*c*) The extension of cracking as a means of yielding more light fuel, particular attention being given to such factors as control the H.U.C. value of the ultimate product.

" (*d*) The extension and improvement of existing means of winning the light fuels produced in the various processes to which coal is subjected, and the legitimate encouragement of such systems as will enable coal now consumed in the raw state to be treated and utilised more economically.

" (*e*) The creation, where economically possible, of methods for the supply of alcohol by means of fermentation, or synthetically."

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PERSONALS

Married

The marriage took place on October 9, at Christ Church, Esher, of Flying-Officer GERALD ARMSTRONG, R.A.F., son of the late Lieut.-Col. Armstrong, D.S.O., and Mrs. Armstrong, of Dunkirk House, Devizes, and MISS ALEXIA MARY FRANCES BARRÈ PHIPPS, daughter of Mr. and Mrs. Barrè Phipps, of St. Nicholas, Esher, Surrey.

On October 5, at All Souls', Langham Place, by Air Commodore H. Viener, C.B.E., Chaplain-in-Chief of the R.A.F., LIONEL COLLINS BEAUMONT, eldest son of Mrs. Beaumont and the late Capt. D. S. Beaumont, of Guernsey, was married to ENID CORINNE, younger daughter of Mr. and Mrs. HORACE H. RIPLEY, of " Outwood," Surrey.

Squadron-Leader H. V. CHAMPION DE CRESPIGNY, M.C., D.F.C., A.F.C., was married on October 7, at St. George's Church, Fovant, to SYLVIA ETHEL USHER, second daughter of Rev. R. and Mrs. Usher.

To be Married

A marriage has been arranged, and will shorly take place, between Flight-Lieut. DENIS H. CAREY, R.A.F. only son of Capt. Walter Carey, C.B.E., R.N., and Mrs. Carey, of Melrose, Winchester, and FERELYTH, elder daughter of Mr. and Mrs. SEYMOUR WAKELEY, of Rainham, Kent.

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" COPPA d'ITALIA " : The Trophy presented by the *Italian Air Ministry for the International Light 'Plane* Meeting which, under the organisation of the Aero Club of Italy, is being held near Rome on October 10.

A marriage has been arranged, and will shortly take place, between Sir REGINALD LEEDS, Bt. (late R.N. and R.A.F.), elder son of the late Mr. W. H. A. St. J. Leeds, I.C.S., and Mrs. J. H. MCNEALE, of The Red Roofs, Cheltenham, and WINNARETTA, only daughter of Mr. PARIS SINGER, of 1 bis, Place des Vosges, Paris, and Mrs. GRAHAM SINGER, of 1, Ovington Square, S.W.

The engagement is announced between Flight-Lieut. RICHARD S. TOPHAM, R.A.F., Medical Service, the only son of the late Dr. A. S. Topham and Mrs. Topham, of Halifax, Yorkshire, and MARÇORIE, eldest surviving daughter of Mr. and Mrs. ROLAND B. CHESSUM, of Enfield, Middlesex.

The engagement is announced between Flight-Lieut. E. F. TURNER, A.F.C., R.A.F., youngest son of Mr. and Mrs. Alweyne Turner, of Eastbourne, and MARGARET ELIZABETH, daughter of Mr. and Mrs. RICHARD GARRATT, of Holywood, Co. Down.

Item

The will of the late ARTHUR BULLER ELLIOTT, of Strathaven House, Brent Street, Hendon, N.W., who had accompanied Mr. Cobham on his flight to Australia, and who died during that journey in the R.A.F. Hospital at Makina, Basra, on July 6, from gunshot wounds received while in flight over Mesopotamia, has been proved at £1,453.

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The Royal Air Force Memorial Fund

THE usual Meeting of the Grants Sub-Committee of the Fund was held at Iddesleigh House, on October 7.

Lieut. Commander H. E. Perrin was in the Chair, and the other Members of the Committee present were :—Mrs. L. M. K. Pratt-Barlow, O.B.E., Mr. W. S. Field.

The committee considered in all 15 cases, and made grants to the amount of £335 4*s*. 6*d*.

The next meeting was fixed for October 21, at 2.30 p.m.

Royal Air Force Flying Accidents.

THE Air Ministry regrets to announce that Flying Officer Philip Hedgeland Nicholls died on October 5, as the result of injuries sustained on October 1, in an accident at Peshawar, India, to a Bristol Fighter of No. 20 Squadron, Peshawar. Flying Officer Nicholls was the pilot of the aircraft. His passenger, No. 347556 L.A.C. George Cairns, received only slight injuries.

As the result of an accident at Kenley, Surrey, to a Grebe aeroplane of No. 56 squadron, Biggin Hill, Kent, on October 8, No. 312488 S.M.I. Erik Gutzeit Haug, the pilot and sole occupant of the aircraft, was killed.

Institute Aeronautical Engineers

ON October 26, Mr. G. H. Dowty, A.F.R.Ae.S. (Member), will read a paper on " Aircraft Alighting and Arresting Mechanisms," before the Institution. The meeting will be held in the Lecture Room of the Junior Institution of Engineers, 39, Victoria Street, S.W.1, at 6.30 p.m., and all who are interested will be welcome to attend.

Sir Samuel Hoare and Trade Development

SIR SAMUEL HOARE, Secretary of State for Air, presided at the inaugural lecture of the cultural studies and handicraft classes, organised for the staff of the Air Ministry, on October 11. In his opening address Sir Samuel said the lectures seemed to him to provide one of many answers to the charges that were often made quite ignorantly and irresponsibly against Civil servants, that they worked less than other people and were less interested in things happening outside their own department. Here they had a case of a great Government department showing its many interests, not only in the day's work of the department, but in the other great subjects outside, and showing it in an increasing degree every year. Over 300 members of the department, including many R.A.F. officers serving in the Air Ministry, have enrolled for these courses. The first of the lectures, " Trade and Travel in the Middle Ages," was given by Dr. Eileen Power, M.A., D.Lit., of London University.

FLIGHT
AIRCRAFT ENGINEER AIRSHIPS

FROM THE FOUR WINDS

French Ambulance 'Plane Crash

A French ambulance 'plane, conveying an injured man, crashed at Ain Dorig, in Morocco, yesterday. The wounded man and the mechanic were killed and the pilot was injured.

German 'Planes on London-Amsterdam Route

In order that Imperial Airways, Ltd., may concentrate on the Paris and Cologne air routes, an arrangement has been made between this company and the German Luft Hansa Company whereby the latter will, for the future, operate the London-Amsterdam route with their Junkers machines, in connection with the Berlin-Hanover service. The Imperial Airways machines will, therefore, be withdrawn from the London-Amsterdam route.

French Flight to Madagascar

Two French seaplanes, piloted by Lieuts. Bernard and Guibbaud, and each accompanied by a mechanic, left Marseilles on October 12 for Madagascar. It is intended that they should follow the west coast of Africa to Senegal, thence via rivers and lakes across Africa to Mozambique. The object of the flight is to test the value of seaplanes as a means of communication between the French colonial possessions.

Lord Sholto Douglas and Mrs. Pickles Married

On October 11 Lord Sholto Douglas was married at the Registrar's Office at Staines to Mrs. Lily Louise Pickles, mother of our old friend and Hendon pilot of early days, Sidney Pickles.

Czechoslovak Aeronautical Scholarships

Three scholarships to enable the holders to study aviation at the Paris School of Aircraft are being offered by the Czechoslovak Ministry of Public Works. Each is for a term of two years. Among the conditions the holders must undertake to serve, if required, for a term of five years in some air service in Czechoslovakia on conclusion of their studies in Paris.

Aircraft-Carrier "Hermes" at Hong-Kong

H.M. aircraft-carrier "Hermes" arrived at Hong-Kong on October 11.

The "Cobham D.H.50" and "Bart's"

The D.H.50J (Siddeley "Jaguar") seaplane, on which Sir Alan Cobham made his England-Australia-England flight, formed, minus its wings, an attractive exhibit in the "Fleet Street Week for Bart's" procession which toured the City of London streets on Saturday last.

Brussels-London Air Liner's Forced Landing

One of the Imperial Airways air liners, *en route* from Brussels to London, had to make a forced landing in a wood at Peteghen (near Deynze) on October 10. In landing the machine came to grief in a ditch and was badly damaged, but the passengers and pilot were unhurt, the former being taken by car to Ostend, whence they proceeded to Dover by boat.

R.A.F. Operations near Persian Gulf

R.A.F. aircraft have been engaged in a punitive expedition against a small section of the Shammer Arabs, as a result of a raid on a village in the Kuweit territory (Persian Gulf).

Schneider Cup Pilot Killed

From Varese it is reported that the Italian pilot Marchese Centurione was killed at the Schiranna air station, on September 21, while testing one of the Macchi 39 racing seaplanes designed for this year's Schneider Cup Race in America. It appears that during a turn the machine side-slipped and crashed into the sea, although the pilot is said to have succeeded in righting it just before it hit the water. Another machine of the same type had previously been successfully tested by Signor Sartori.

Death of Dr. Lhota

It is with sincere regret that we record this week the death, as a result of an aeroplane accident, of Dr. Lhota, the famous Czechoslovak pilot, Dr. Lhota, it appears, was flying one of the Avia monoplanes for the Coppa d'Italia at Rome when he crashed. By his death Czechoslovakia has lost one of her foremost pilots, and certainly her chief exponent of the value of light 'planes. Dr. Lhota, it may be remembered, won first prize in the recent light 'plane meeting at Orly, near Paris.

A Soviet Airship

It is reported from Sebastopol that the first Soviet airship is almost ready for test. This airship, of the non-rigid type, is said to have been designed at the School of Aerial Navigation in Leningrad, and to have a capacity of 2,500 cub. m. It is to carry a crew of four.

Dornier "Super-Wal" tested

A few days ago the new Dornier flying-boat, known as the "Super-Wal," was tested at Friedrichshafen by the Dornier pilot Wagner. This machine, which is to carry 25 passengers, is equipped with two Rolls-Royce "Condor" engines.

The Taylor Gold Medal

The Council of the Institution of Aeronautical Engineers has awarded to Capt. W. H. Sayers the "Taylor Gold Medal" for the session 1925-26 for his paper entitled "The Modern Theory of Aerofoils and its Application to Aircraft Design."

Australian Pacific Flight

Continuing the survey flight to the Pacific islands, Group-Capt. R. Williams, Chief of Australian Air Staff, left Gladstone, on October 6, in the Supermarine "Seagull," and, making a brief stop at Mackey, flew to Bowen. On October 8 Cooktown was reached, and by Sunday (October 10) he got as far as Thursday—the island, not the day of the week! He left for Port Moresby, New Guinea, on October 11.

Imperial Airship Progress

Steady progress is being made with the Imperial Airship service scheme. One girder of the 5,000,000 cub. ft. airship R. 101 has been completed and certain preliminary tests have successfully been carried out. These girders are being constructed of stainless steel, and it may be mentioned that the metal components for this airship are being constructed by Messrs. Boulton & Paul who have considerable experience in metal construction for aircraft. As regards the other side of the scheme, on October 9 the first piece of steel structural work for the new airship shed at Karachi was hoisted into position in the presence of a large number of people, including many distinguished guests. The ceremony was performed by Mrs. T. C. Frampton, the wife of the agent of the Armstrong Construction Co.

End of Berlin-Peking Survey Flight

After an absence of over two months the two Junkers G.23 three-engined monoplanes of the Deutsche Lufthausa air transport company, which have been surveying the route to be followed by an air service between Berlin and Peking, have returned to Berlin. The expedition has reported favourably on such a service, although a considerable amount of work will have to be done before the service can get going.

The Brothers Arrachart at it again

An unsuccessful attempt at beating the existing world's record for non-stop flight in a straight line was made recently by the brothers Arrachart, the famous French pilots. Starting from le Bourget in a Breguet 19 with 550 h.p. Renault engine at 2 a.m. (*i.e.*, in total darkness) on September 28, a following wind helped them along for the first part of their journey, but gradually the visibility became very bad, and in Russia the weather was quite impossible, so that ultimately it became necessary to alight in the province of Ekaterinenburg, on the Siberian frontier. The distance covered was in the neighbourhood of 4,000 km. (2,500 miles).

Paris-Corsica-Paris

On September 30 two French aviators, Sergt. Duteriez and Lieut. Vitrolles, flew, in a Breguet 19A2, from le Bourget to Corsica (where photographs were taken to prove the attainment of that island) and back to le Bourget in a day, the distance covered being in the neighbourhood of 2,000 km. (1,240 miles).

Aeroplanes! Yes, Sir, this Way

The first Aeroplane Show Rooms have just been opened in New Bond Street. Here the prospective buyer, or flier may inspect the latest model (full-size) aeroplane, and have all its features and qualities explained by an enthusiastic, well-groomed, "aero-salesman," just in the same way as that obtaining in the familiar motor-car showrooms. The machine so displayed in this new show room is a D.H. "Moth," and already many people have "looked in" to make inquiries. It looks as if soon some of our big "stores" will be having an aeroplane bargain basement on the roof.

THE INTERNATIONAL LEAGUE OF AVIATORS

MR. CLIFFORD B. HARMON, as Founder and President of the I.L.A., at a luncheon at the Savoy Hotel last week, explained the why and wherefore of the Association which he has very much at heart. Mr. Harmon was introduced by Lieut.-Col. Edwards who presided in the absence of Air Vice-Marshal Brancker. Mr. Harmon, he reminded the guests, was one of the earliest in aviation to qualify in piloting —as far back as 1910—then creating many records in America and therefore must be recognised as one of the pioneers in aviation. Mr. Harmon, he said, possessed the vision that the final end of commercial aviation must be International companies or corporations, although the composing units would naturally be in competition with each other, to the benefit of aviation, and he thought commercial aviation would ultimately take the place of the League of Nations. It was this future which was at the back of his mind when he founded the I.L.A., and of which there were already branches founded abroad.

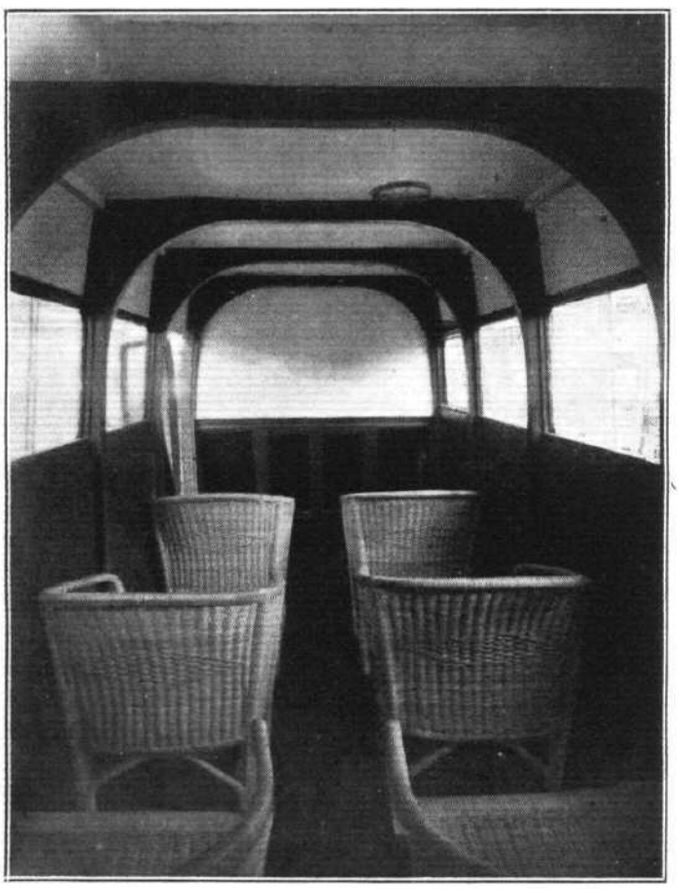
Mr. Harmon said he was trying to establish the I.L.A. all over the world. In France it had been growing, and he hoped that Great Britain would be one of its greatest hopes. Only aviators could join who held certificates entitling them to call themselves pilots. It was started four months ago and already 14 countries had signified their willingness to come into the League. King Albert of Belgium, as Hon. President, had become the Grand Patron of their new venture and he hoped to have General Brancker as their English President. The League sought to benefit aviators by companionship and provided many and diverse privileges for those joining up, and the cost was only 2*s.* to belong. The President of each country selected his own officers to attend the regular meetings of the League and to control the management. They had their own little insignia. They were trying to form posts in every country where the courageous young aviators could hang up their hats and become one of a great family. Trophies would be awarded for meritorious work, and another proposal was the adoption into good families of the children of aviators who had lost their lives. Each branch had been presented with a bronze statue for the best piece of work during the year by an airman, whether Member of the League or not—besides another Trophy. In Paris a big fête was being organised of which one-third of the ticket sales would go to the Ace of Aviators, whoever may be decided upon, and two-thirds to the League funds. Ten children of aviators who had lost their lives were to be sent to the United States to be adopted and educated and looked after for launching upon life. Admiral Mark Kerr responded for the guests.

Schneider Cup Race Postponed

THE contest for the Schneider Cup race, originally fixed for October 24, has been postponed to November 11.

The Cruise of the "Southamptons"

IT is always of interest to hear how certain components behave during the big performances carried out by aircraft from time to time. For instance, Cellon (Richmond) Ltd., have received from the Supermarine Aviation Works, Ltd., a report regarding the "Cellon" dope used on the two Supermarine "Southamptons" flying-boats which recently carried out a very successful flight to Egypt and back. The report says :—"Since the return of the two 'Southampton' type machines . . . we have had an opportunity of examining the condition of these machines after their strenuous service in very varying atmospheric conditions. We feel sure you will be both interested and pleased to know that the condition of the fabric on both machines is in first-class order, its original tautness being still retained, which is a proof of the excellence of your dope as these machines were never placed under cover from the time they left England until they returned, and at all stopping places were moored out in the open under constantly varying conditions."



PASSENGER CARRIER FOR AUSTRALIA : View inside the cabin of the A.N.E.C. III, which was described and illustrated in "Flight" for Feb. 11, 1926.

U.S. Air Attachés in Aeroplane Crash

ON September 21 last Maj. C. L. Tinker, Assistant Army Air Attaché at the U.S. Embassy, and Commander R. A. Burg, Assistant Naval Air Attaché, were involved in an accident whilst carrying out a practice flight near Kenley on an American-built D.H.4c (Liberty). The engine failed shortly after taking off, and the machine collided with some trees and crashed to the ground, immediately bursting into flames. Maj. Tinker managed to get free and assist his companion from the burning machine. Both were severely burned and injured, and were conveyed to Purley Hospital, where Commander Burg died as a result of his injuries on September 26. Maj. Tinker is progressing satisfactorily.

British-Made Magnetos

A LARGE party of Press representatives and others spent a very interesting afternoon recently going through the magneto works of the British Thomson-Houston Co., Ltd., at Coventry. At the preceding luncheon given by the directors of the company, reference was made to the fact that previous to 1914 there was for all practical purposes no magneto industry in this country; the two factories of the B.T.-H. Co. in Coventry showed that there is now a very extensive and healthy industry, especially when it is remembered that there are several other factories busily engaged in magneto making.

While the rotating armature type of magneto is still mostly in demand, the call for the polar-inductor type, especially for aeroplane and other high-speed engines, is steadily increasing. In this department the B.T.-H. Co. is remarkably well equipped, as it has been engaged on this type since the early days of the war. For high-speed engines the B.T.H. polar inductor has many advantages, the most important being that it can very conveniently be made as a four-spark machine, whereas the rotating armature magneto is essentially a two-spark machine. Another interesting development of recent years is an automatic timing device, which, of course, is greatly in demand for car work.

The B.T.-H. Co. has recently turned its attention to producing a lighting and starting set for cars, which has given very fine results.

In the matter of moulded insulations, which play a very important part in the magneto industry, the B.T.-H. Co. has established plant which is one of the largest and most up-to-date installations in the country. This moulded insulation is known as "Fabrolite," and it leaves the mould with such a highly polished finish that no finishing operations are required.

In addition to its use for moulded insulations, another important industrial application of "Fabrolite" is in the production of "Fabroil" silent timing gears.

FLIGHT
A Journal Devoted to Aeronautical Engineering and Aviation

THE ROYAL AIR FORCE

London Gazette, October 5, 1926

General Duties Branch

Group Capt. A. B. Burdett, D.S.O., is apptd. Deputy Director of Organisation, Air Ministry, vice Group Capt. R. P. Mills, M.C., A.F.C. (Sept. 21).

The follg. Flying Officers are granted permanent commissions in this rank :—A. A. Jones (Aug. 1) ; D. S. Brookes, J. W. Colquhoun, H. I. Cozens, A. F. Hutton, R. O. Jones, J. B. Lynch, O. R. Pigott (Lieut., R. A. T. A.) P. Slocombe, L. Young (Sept. 18). F. L. Collison (Lt., 4th Essex Regt.) is granted a short-service commission as a Flying Officer, with effect from and with seniority of Sept. 6.

The follg. Pilot Officers are promoted to rank of Flying Officer :—J. C. C. Slater (March 12) ; W. F. Rimmer, E. B. C. Groner (May 15) ; E. J. Ellis, J. A. E. Inkster, G. M. E. Shaw (Aug. 6) ; V. J. Sofiano (Sept. 6) ; J. C. Noel, L. F. T. Price (Sept. 17). The follg. Pilot Officers, on probation, are confirmed in rank (Sept. 13) :—W. I. N. Strong, J. Constable-Roberts, J. W. Duggan, I. J. Fitch, H. P. Hudson, R. J. Legg, A. A. Leslie, N. McLeod, R. R. Nash, R. G. Pace, N. C. Pleasance, N. C. Ross-Roberts, G. H. Shaw, S. R. Sherman, L. R. Stokes, G. A. V. Tyson, E. F. Wain, E. C. Foreman.

Flying Officer S. H. Hardy is restored to full pay from half-pay (Sept. 20) ; Flight-Lieut. F. Beaumont is placed on half-pay, scale B, from Sept. 1 to 30, inclusive ; Flying Officer R. D. V. Howard is transferred to Reserve, Class A (Oct. 5) ; Flight-Lieut. D. S. Jillings, M.C., is placed on retired list at his own request (Oct. 1). The follg. Lieuts., R.N., Flying Officers, R.A.F., relinquish their temp. commns. on return to Naval duty :—H. E. Guerrier (Sept. 28) E. A. A. Gibbon (Oct. 1).

Stores Branch

Flying Officer B. E. Essex is granted a permanent commission in this rank with effect from Nov. 24, 1925, on completion of probationary service. The follg. are transferred to Stores Branch on probation as Flying Officers with effect from and with seniority of Oct. 1 :—Flight-Lieut. L. V. Hirst. Flying Officers J. R. R. Harvey, M.M. ; L. W. Park ; J. W. Hustwaite, M.B.E. ; M. F. Tomkins ; J. W. Mitchell.

Flying Officer J. C. Daniels is transferred to Reserve, Class C (Oct. 1).

Accountant Branch

Pilot Officer on probation R. J. Wishlade is confirmed in rank and is promoted to rank of Flying Officer (Aug. 10). The follg. Flying Officers are transferred to Reserve, Class C. :—J. P. A. Fulton (Oct. 1) ; H. Hedderwick (Oct. 1) ; H. C. Roberts (Oct. 6).

Medical Branch

Flying Officer G. J. Hanly, M.B., is granted a permanent commission in this rank (Oct. 6) ; Flying Officer R. F. G. Dickson relinquishes his short-service commission on account of ill-health (Sept. 22).

Reserve of Air Force Officers

C. E. F. Sayer is granted a commission in Classs A.A., General Duties Branch, as a Pilot Officer on probation (Sept. 20). The follg. Pilot Officers are confirmed in rank (Sept. 30) :—A. W. Lindsay, H. Wood.

Flying Officer A. E. Francis is transferred from Class A to Class C (Oct. 5). The follg. Flight Lieutenants are transferred from Class D2 to Class D1 :—J. C. Smyth (Aug. 26) ; O. St. L. Campion (Oct. 3). Pilot Officer C. T. G. R. Miller resigns his commission (Oct. 5). The commission of Pilot Officer on probation P. D. V. Hackett is terminated on cessation of duty (Aug. 31).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified :—

General Duties Branch

Wing Commanders : W. H. Primrose, D.F.C., to Air Ministry, for Tech. Staff duties, 21.9.26. V. S. Brown, to Station H.Q., Upavon, to command, 6.9.26.

Squadron Leader R. G. Parry, D.S.O., to R.A.F. Depot, Uxbridge, on transfer to Home Estab., 1.10.26.

Flight Lieuts. : H. E. Walker, M.C., D.F.C., to H.Q., Spec. Reserve and Auxiliary Air Force ; 21.9.26. W. A. C. Morgan, M.C., A. H. Orlebar, A.F.C., R. M. Trevethan, M.C., W. E. G. Mann, D.F.C., and G. L. Ormerod, to H.Q., Iraq ; 21.9.26. T. Henderson, M.C., A.F.C., and K. B. Lloyd, A.F.C., to No. 70 Squadron, Iraq ; 21.9.26. T. C. Thomson and P. J. Clayson, M.C., D.F.C., to Aircraft Depot, Iraq ; 21.9.26. C. Boumphrey, D.F.C., to No. 481 Flight, Malta ; 21.9.26. A. H. Flower, to No. 208 Sqdn., Egypt ; 21.9.26. P. Murgatroyd, to No. 4 Flying Training Sch., Egypt ; 21.9.26.

Flight Lieutenants : F. M. F. West, V.C., M.C., and W. G. Meggitt, M.C., to Station H.Q., Upavon, 6.9.26. T. M. Williams, M.C., D.F.C., to No. 402 Flight, Mediterranean, 1.10.26. N. Comper, to Marine Aircraft Experimental Estab., Felixstowe, 30.10.26.

Flight Lieutenants : G. F. Smylie, D.S.C., and H. I. T. Beardsworth, to R.A.F. Depot, Uxbridge, 12.10.26. A. F. James, to R.A.F. Depot, Uxbridge, on transfer to Home Estab., 13.10.26. C. J. Brockbank, M.B.E., to Air Ministry, Directorate of Equipment, 30.9.26. M. Moore, O.B.E., to R.A.F. Depot, Uxbridge, 25.9.26. O. W. de Putron, to R.A.F. Depot, Uxbridge, instead of to No. 99 Sqdn., as previously notified, 12.8.26.

Flying Officers : W. A. Chase, to R.A.F. Depot, Uxbridge, on transfer to Home Estabt ; 28.8.26. M. H. Fitzgerald, to R.A.F. Depot, Uxbridge ; 27.9.26. T. Marchant, C. Snow and A. P. Marchant, M.B.E., D.S.M., to Aircraft Depot, Iraq ; 21.9.26. H. S. Sandiford and M. W. C. Ridgway, to No. 6 Armoured Car Co., Iraq ; 21.9.26. E. D. Barnes and V. Harris, to No. 5 Armoured Car Co., Iraq ; 21.9.26. M. H. Ely, to Station Commandant, Basra ; 21.9.26. J. N. Boothman and (Hon. Flight-Lieut.) U. C. de Burgh, to No. 55 Sqdn., Iraq ; 21.9.26. G. N. P. Stringer, to No. 30 Sqdn., Iraq ; 21.9.26. F. E. Nuttall, to No. 84 Sqdn., Iraq ; 21.9.26. R. R. Bennett, to Aircraft Depot, Iraq ; 21.9.26. J. H. Parry and C. W. Switzer, to No. 70 Sqdn., Iraq ; 21.9.26. H. T. J. Jagger, to No. 6 Sqdn., Iraq ; 21.9.26. (Hon. Flight-Lieut.) A. E. G. Forrest, to Aircraft Depot, India ; 21.9.26. R. L. Bateman, J. H. Hutchinson and R. A. Seaton, to No. 4 Flying Training Schl., Egypt ; 21.9.26. H. M. Whitte, to No. 481 Flight, Malta ; 21.9.26. W. J. P. Sloan, to No. 27 Sqdn., India ; 21.9.26. V. B. Bingham-Hall, M.C. and C. H. Noble, to No. 208 Sqdn., Egypt ; 21.9.26. A. J. Holmes, to No. 28 Sqdn., India ; 21.9.26. C. A. C. Fidler, D.C.M., to Electrical and Wireless Schl., Flowerdown ; 11.10.26. G. P. H. Carter, to No. 11 Sqdn., Netheravon ; 17.9.26. C. G. C. Sullivan, to R.A.F. Training Base, Leuchars ; 27.9.26. N. W. F. Mason, to No. 24 Sqdn., Kenley, on transfer to Home Estabt. ; 21.9.26. F. L. Collinson, to No. 24 Sqdn., Kenley, on appointment to a Short Service Commn. ; 6.9.26.

Flying Officers : L. W. Beck to R.A.F. Depot, Uxbridge, on transfer to Home Estab., 9.7.26. E. D. Cummings, D.F.C., to No. 440 Flight, Mediterranean, 1.10.26. A. H. J. Howlett, to No. 460 Flight, Mediterranean, 1.10.26. E. S. Osborn, to No. 9 Sqdn., Manston, 29.10.26. A. M. Webster, to No. 1 Flying Training Sch., Netheravon, 12.10.26. H. P. Morris, to No. 24 Sqdn., Kenley, 18.10.26. F. E. Vernon, to R.A.F. Depot, Uxbridge, 12.10.26. J. A. Mollison, to R.A.F. Depot, Uxbridge, on transfer to Home Estab., 28.9.26. J. H. C. Wake, to R.A.F. Depot, Uxbridge, 5.10.26. G. W. R. Russell, to No. 28 Sqdn., India, 10.9.26.

Pilot Officers : S. H. Hardy and F. B. Tomkins, to No. 84 Sqdn., Iraq ; 21.9.26. R. Matheson and C. Heard-White, to No. 55 Sqdn., Iraq ; 21.9.26. J. H. Leach, to No. 5 Flying Training Schl., Sealand ; 4.10.26. R. L. Burnett to No. 20 Sqdn., India ; 21.9.26.

Pilot Officers : E. J. Ellis, to No. 28 Sqdn., India, 1.7.26. C. R. McEvoy, to Electrical and Wireless Sch., Flowerdown, 27.9.26. G. P. Butcher, to No. 27 Sqdn., India, 10.9.26.

Accountant Branch

Sqdn. Leader R. Whyte, to Aircraft Depot, Iraq ; 21.9.26.

Flight Lieut. J. C. Brice, to Aircraft Depot, Iraq ; 21.9.26.

Flight Lieutenants : H. J. Gilbert, to Aeroplane and Armament Experimental Estab., Martlesham Heath, instead of to No. 1 Sch. of Tech. Training (Apprentices), as previously notified, 23.9.26. H. C. F. Ellis, to No. 1 Sch. of Tech. Training (Apprentices), Halton, 4.10.26. H. J. Gilbert, to remain at Sch. of Tech. Training (Men), Manston, instead of to Aeroplane and Armament Experimental Estab., as previously notified. H. C. F. Ellis, to remain at Aeroplane and Armament Experimental Estab., instead of to No. 1 Sch. of Tech. Training (Apprentices), as previously notified.

Flying Officers : F. C. Chalmers, to Brigade Accountant Office, Iraq ; 21.9.26. R. T. Carter, to No. 5 Armoured Car Co., Iraq ; 21.9.26. H. J. Titherington, to No. 6 Armoured Car Co., Iraq ; 21.9.26. E. Smith, to No. 55 Sqdn., Iraq ; 21.9.26.

Flying Officers : R. G. Dyer, to Central Accountant Office, Poona, 21.9.26. S. C. George, to No. 2 Armoured Car Company, Palestine, 6.9.26.

Pilot Officer R. A. J. Mullarkey, to R.A.F. Base, Gosport ; 20.9.26.

Pilot Officers : J. P. Cave and W. F. Quilliam, to Station H.Q., Upavon, 6.9.26.

Medical Branch

Group Captain C. E. C. Stanford, D.S.O., M.B., B.Sc., to H.Q., Iraq, pending disposal, 21.9.26.

Flight Lieutenant R. S. Topham, M.B., D.Ph., D.M.R.E., to R.A.F. Hospital, Halton, 1.11.26.

Flight Lieutenant (Dental).—T. K. Place, to H.Q., Egypt, 21.9.26.

Flying Officers : G. J. Griffiths, T. W. Wilson, D. B. Smith, M.B., J. McM. Wilder, F. B. C. L. B. Crawford, M.B., R. J. K. Chattey, B. L. Edwards, M.B., and E. A. Aslett, to H.Q., Iraq, 21.9.26. J. Magner, M.B., and E. J. Mockler, M.B., to H.Q., India, 21.9.26. P. D. Barling, M.B., to H.Q., Egypt, 21.9.26. P. H. Perkins, to No. 58 Sqdn., Worthy Down, instead of to No. 100 Sqdn., as previously notified, 15.9.26. G. S. Strachan, M.B., to Station H.Q., Bircham Newton, instead of to Station H.Q., Andover, as previously notified, 28.8.26. C. W. Coffey, to Station H.Q., Andover, instead of to Station H.Q., Bircham Newton, as previously notified, 18.9.26.

Flying Officer C. W. Coffey to Station H.Q., Bircham Newton ; 18.9.26.

Flying Officers (2. Mstr.), Medical : F. W. Goodread, to Stores Depot, Iraq, 21.9.26. D. Breen, to Palestine General Hospital, 21.9.26.

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AIR MAILS: AUTUMN SUSPENSIONS

THE Postmaster-General announces that as from October 2 the undermentioned Air Mail services and relative despatches will be suspended for the winter. The route numbers quoted are those shown on p. 2 of the current Air Mail Leaflet (July 1926 edition).

Letter Mails.—London–Lyons–Geneva–Marseilles, and the Friday morning supplementary despatches by air to Marseilles of letters for India and beyond, Egypt, Iraq, Aden, and East Africa. (Route 2.)

Paris–Prague–Vienna and beyond. (Route 4.)

From Cologne to Munich. (Route 5B.)

From Hamburg to Malmo, and from Stockholm to Helsingfors. (Route 7B.)

London–Hanover–Berlin–Königsberg. (Route 8.)

London–Kovno, for letters to Lithuania, Lettonia, and Estonia. (Route 9A.)

Moscow–Kharkhov. (Route 9B.)

Routes 5A (London–Brussels–Cologne) and 7A (London–Amsterdam–Hamburg) are being maintained ; and the latter route, by connecting at Hamburg with ordinary night services thence, will continue to offer advantage for letters to Denmark, Sweden, and Eastern Norway. The Königsberg–Moscow section of Route 9A (London–Kovno–Moscow) will be maintained until October 30 (last despatch from London October 28), and will continue to offer a saving of one or two days for letters to all parts of Russia, and a later connection at Moscow with the through trains thence to Siberia and the Far East. The relative despatch will be closed at the General Post Office, London, at 6 p.m. each weekday.

Parcel Air Mails.—The direct air parcel service to Berlin (*see* p. 3 of the Leaflet) will cease after the 2nd inst. The services to Cologne and Hamburg will be maintained.

NOTICES TO AIRMEN

Parachute Descents from Civil Aircraft

IT is notified that under Article 13 of the Air Navigation (Consolidation) Order, 1923, as amended by the Air Navigation (Amendment) Order, 1925, parachute descents from civil aircraft are prohibited unless permitted by directions issued by the Secretary of State.

Formal application for the necessary permission, giving full details of the proposed descent, should be addressed to the Secretary (A & L), Air Ministry, Gwydyr House, Whitehall, London, S.W.1, at least 14 days prior to the date on which it is desired to make the parachute descent.

(No. **56** *of* 1926).

R.A.F. Procedure for Starting Aeroplanes

IT is notified :—

1. In order to avoid risk of accident when personnel of the Royal Air Force or of Government civil aerodromes are employed for starting up aeroplanes it is necessary that pilots should follow a uniform procedure for swinging air screws ; the procedure in use in the Royal Air Force has accordingly been extended to Government civil personnel.

2. This procedure, which should be strictly observed by civil pilots when R.A.F. or Government civil personnel are engaged, is outlined with each notice sent out. The pilot should exercise the greatest care never to allow the airscrew to be touched before he has ascertained that the switches are in the " switch-off " position, and should realise that if an accident in starting up occurs through his failure to observe the correct procedure he alone will be held responsible.

Air Pilot.—A copy of this Notice should be inserted in the Air Pilot at the end of Chapter II, the pages being numbered 14 A-C, and the paragraphs 51 A-B.

(No. **58** of 1926).

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SOCIETY OF MODEL AERONAUTICAL ENGINEERS

THE Society put up a most excellent exhibit at the recent Model Engineer Exhibition held at the Horticultural Hall (Westminster) from September 17 to 25. The stand showed a representative display of the progress which has been made in the past few years with flying models, and the machines exhibited by members did great credit to the S.M.A.E. Several of the models were holders of British records. More especially was this progress noticeable in that the fuselage type of model (*i.e.*, one that has its motive power, whether rubber or compressed air, totally enclosed) has almost entirely superseded the spar type of machine.

The models exhibited and their awards are as follows :—

	Exhibitor.	Award.
Fuselage tractor	S. R. Badley	—
Racing monoplane	R. N. Bullock	Silver medal.
Compressed air model	C. C. Dickinson	Commended.
11-ft. span C.A. model		Highly commended.
Fuselage tractor " Kestrel "		Silver medal.
Autogiro	F. de P. Green	Very highly commended.
Speed monoplane		Highly commended.
C.A. fuselage tractor		Bronze medal.
Fuselage tractor monoplane (Firefly type)	H. T. Jackson	—
Tailless monoplane	B. K. Johnson	Very highly commended.
Low-wing fuselage monoplane	S. G. Mullins	—
" Wing-only " type model	D. A. Pavely	—
Duration fuselage tractor	W. J. Plater	Silver medal.
Deep fuselage tractor monoplane	L. G. Tucker	—

Besides the flying models, the stand was well equipped with material which showed the general activities of the society, such as photographs, lantern slides, posters, etc. Among the many persons in the aeronautical world who visited our stand during the week were Dr. A. P. Thurston (President) and Air Vice-Marshal Sir Sefton Brancker, Director of Civil Aviation. Altogether our exhibit proved one of the greatest successes we have had for many years.

B. K. JOHNSON,
Hon. Secretary.

PUBLICATIONS RECEIVED

Aeronautical Research Committee Reports and Memoranda : No. 989 (*Ae.* 200).—An Investigation of the Flow of Air Around an Aerofoil of Infinite Span. By L. W. Bryant and D. H. Williams. February, 1924. Price 1*s.* 9*d.* net. *No.* 995 (*M.* 32).—The Behaviour of Single Crystals of Aluminium Under Static and Repeated Stresses : Parts 1, 2 and 3. By H. J. Gough, D. Hanson and S. J. Wright. November, 1924. Price 3*s.* 6*d.* net. *No.* 1015 (*Ae.* 218).—On the Drag of an Aerofoil for Two-Dimensional Flow. By A. Fage and L. J. Jones. November, 1925. Price 7*d.* net. H.M. Stationery Office, Kingsway, London, W.1.

Technologic Papers of the Bureau of Standards : No. 320.—A Fabric Tension Meter for Use on Aircraft. By L. B. Tuckerman, G. H. Keulegan and H. N. Eaton. Department of Commerce, Bureau of Standards, Washington, D.C., U.S.A.

Theorie des Segelfluges. By Dr.-Ing. W. Klemperer. *Abhandlungen aus dem Aerodynamischen Institut, No.* 5. Julius Springer, Linkstr., 23–24, Berlin, W.9. Price 6·90 Reischmark.

Technical Notes of the U.S. National Advisory Committee for Aeronautics : No. 242. Improving the Performance of a Compression Ignition Engine by Directing Flow of the Inlet Air. By C. Kemper. July, 1926. *No.* 243.—The Characteristics of the N.A.C.A. M-12 Airfoil Section. By G. J. Higgins. August, 1926. *No.* 244.—Navy Propeller Section Characteristics as Used in Propeller Design. By Fred E. Weick. August, 1926. *No.* 245.—Report on Tests of Metal Model Propellers in Combination with a Model Ve-7 Airplane. By E. P. Lesley. August, 1926. The National Advisory Committee for Aeronautics, Washington, D.C., U.S.A.

U.S. National Advisory Committee Reports : No. 223.—Pressure Distribution on the C-7 Airship. By J. W. Crowley, Junr., and S. J. De France. *No.* 235.—Interaction between Air Propellers and Airplane Structures. By W. F Durand. National Advisory Committee for Aeronautics, Washington, D.C., U.S.A.

The Air Pilot Monthly Supplement. No. 24.—October, 1926. Air Ministry, Kingsway, London, W.C.2.

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AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations : Cyl. = cylinder ; i.c. = internal combustion ; m. = motor
The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

APPLIED FOR IN 1925

Published October 14, 1926

13,165. V. C. RICHMOND and G. H. SCOTT. Rigid airships. (258,316.)
13,166. V. C. RICHMOND and G. H. SCOTT. Mooring-gear for airships. (258,317.)
15,718. E. H. VAN VALKENBERG. Dirigibles. (258,341.)
26,261. R. LEPARMENTIER. Aircraft. (241,592.)
30,004. DR. M. KLEIN. Vehicles with cylindrical propellers rotating in a flowing medium. (243,755.)

APPLIED FOR IN 1926

Published October 14, 1926

15,439. E. H. VAN VALKENBERG. Dirigibles. (258,524.)
15,440. E. H. VAN VALKENBERG. Dirigibles. (258,525.)
15,441. E. H. VAN VALKENBERG. Ballasting-devices for airships. (258,526.)
15,442. E. H. VAN VALKENBERG. Engine mountings for airships. (258,527.)
21,078. AIRSHIP GUARANTEE CO., LTD., B. N. WALLIS and C. D. BURNEY. Lighter-than-air aircraft. (258,539.)

FLIGHT

The Aircraft Engineer and Airships

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